

depressed. Limbs moderate; digits rather slender; 21 transverse lamellæ under the fourth toe. Head and body covered with smooth granules, smallest on the occiput; on the back these granules are intermixed with numerous irregularly disposed smooth tubercles; ventral scales flat, smooth, subimbricate. Rostral with median cleft above; nostril between the rostral, the first upper labial, and three nasals; nine upper and seven lower labials; symphysial large, triangular, followed by a pair of large chin-shields. Tail covered with irregular, imbricate, smooth scales. Greyish above, with small dark brown spots and vermiculations, and six crescentic brown, dark-edged cross-bands, the first from eye to eye across the nape, the sixth on the base of the tail; lower parts white.

	mm.
Total length.....	102
Head.....	15
Width of head.....	11
Body.....	39
Fore limb.....	19
Hind limb.....	25
Tail.....	48

A single female specimen from Chaksam Ferry, Tsangpo Valley, 12,500 feet, presented by Lieut.-Col. L. A. Waddell.

2. *Agama himalayana*, Stdr.

Chaksam and Lhasa.

3. *Phrynocephalus Theobaldi*, Blyth.

Chaksam, Kamba Jong, and Gyangtse.

The black spot on the belly is variable and not a sexual character.

XLIX.—*Rhynchotal Notes*.—XXXI. By W. L. DISTANT.

Subfam. *GÆANINÆ* (continued from p. 319).

THIS communication completes the enumeration of the genera which are included in this subfamily, reserving the inquiry as to a few others which have been described but not yet seen by the writer. These, with any that may come to hand and not yet described, will be referred to when

examined, and their proposed location denoted, as is done in two examples at the end of the present instalment.

Division ZAMMARARIA.

In this division the pronotal margins are amplified and usually medially angulate; the tympanal orifices are more or less exposed—little in *Odopæa* and very largely in *Zammara*; the tegmina and wings (with the exception of some species of *Odopæa*) are hyaline and usually more or less spotted.

This division is entirely confined to Tropical and Sub-tropical America.

Synopsis of Genera.

- | | |
|--|------------------|
| A. Tympanal coverings outwardly complete, the orifices only exposed inwardly. | |
| a. Pronotum shorter than mesonotum. | |
| b. Head (including eyes) about equal in width to base of mesonotum | <i>Odopæa.</i> |
| B. Tympanal coverings inwardly complete, the orifices only exposed outwardly. | |
| aa. Pronotum as long as mesonotum. | |
| c. Head (including eyes) narrower than base of mesonotum | <i>Miranha.</i> |
| C. Tympanal coverings outwardly complete, the orifices very widely exposed internally. | |
| d. Head (including eyes) about as wide as base of mesonotum | <i>Zammara.</i> |
| dd. Head (including eyes) only about two thirds the breadth of base of mesonotum | <i>Orellana.</i> |

Genus ODOPEA.

Odopæa, Stål, Ann. Soc. Ent. Fr. (4) i. p. 616 (1861).

Type, *O. dilatata*, Fabr. (*Tettigonia*).

Odopæa perspicua, sp. n.

Head, pronotum, and mesonotum virescent; mesonotum with subobsolete traces of four obconical spots on anterior margin, the two central smallest; the anterior margin of the cruciform elevation a little castaneous and greyishly pilose; abdomen above dark castaneous, basally, centrally, longitudinally paler; body beneath and legs greenish ochraceous; tegmina very pale brownish, much suffused and streaked with green, especially on basal half, and with two prominent transverse subcostal spots between radial area and apex; wings pale castaneous, much suffused with dark castaneous on basal and apical areas. Head (including eyes) about as wide as base

of mesonotum; lateral pronotal margins angularly amplified; opercula in male short, not meeting inwardly; tegmina long and narrow.

Long., excl. tegm., 29 mm.; exp. tegm. 80 mm.

Hab. São Thomé (*Negreiros*, Paris Mus.).

MIRANHA, gen. nov.

Head (including eyes) a little narrower than base of mesonotum, the front moderately prominent, but only about half the length of vertex, lateral margins of vertex a little convex; pronotum about as long as mesonotum, its lateral margins amplified and medially angulate; abdomen about as long as space between apex of head and base of cruciform elevation, its lateral areas above moderately oblique, the tympanal orifices inwardly covered but outwardly exposed; abdomen beneath with the disk oblique on each side, but with the lateral margins broadly subreflected; rostrum passing the posterior coxæ; opercula small, transverse; tarsi three-jointed; tegmina and wings hyaline, the first with eight apical areas, and the basal cell considerably longer than broad.

Type, *M. imbellis*, Walk. (*Zammara*).

Genus ZAMMARA.

Zammara, Amy. & Serv. Hist. Hém. p. 468 (1843).

Type, *Z. tympanum*, Fabr. (*Tettigonia*).

ORELLANA, gen. nov.

Head (including eyes) only two thirds the width at base of mesonotum, its length about equal to that of pronotum, vertex nearly twice the length of front; pronotum about twice as broad as long, its lateral margins broadly amplified and medially angulate; mesonotum a little longer than pronotum and (including basal cruciform elevation) about as long as pronotum and head together; abdomen short, broad, about as long or sometimes shorter than space between apex of head and base of cruciform elevation; tympanal coverings outwardly complete and covering lateral areas, but the orifices widely exposed internally; opercula in male small, transverse, not passing base of abdomen; face broader than the space between it and eyes; tegmina and wings hyaline, more or less maculate; tegmina with eight apical areas; tarsi two-jointed.

Allied to *Zammara*.

Type, *O. columbia*, Dist. (*Zammara*).

Orellana brevis, sp. n.

Head, pronotum, and mesonotum olivaceous green; head with the area of the ocelli, or sometimes completely, shaded with dull castaneous; pronotum with a central fascia and the incisures black; mesonotum with two central obconical spots, on each side of which is a small spot on anterior margin, and a large oblique fasciate spot on each side of posterior disk, black; abdomen above brownish ochraceous; segmental margins, tympanal coverings, and lateral areas of metanotum bright emerald-green; body beneath and legs pale green; face and apices of tibiae and tarsi more or less dull castaneous; abdomen beneath with the stigmata whitishly tomentose; tegmina and wings hyaline, venation fuscous, brownish at base; tegmina with the interior of the basal cell green, costal membrane, a spot at end of radial area, a spot on transverse vein at base of second apical area, and sometimes a spot in upper ulnar area fuscous brown. Head (including eyes) about two thirds the width of mesonotum at base; lateral margins of pronotum strongly amplified and medially obtusely angulate; lateral tympanal coverings about as broad as the internally exposed orifices; abdomen very short, not longer than space between anterior margin of pronotum and base of cruciform elevation; rostrum reaching posterior coxæ.

Long., excl. tegm., ♂ 24-26 mm.; exp. tegm. 84-92 mm.

Hab. Colombia (Brit. Mus.).

Division HAMZARIA.

This division, at present including only a single Eastern genus, has much affinity with the Neotropical division Zammararia. The pronotal margins are amplified; the tympanal coverings only concealing about half of the tympanal orifices; the tegmina and wings almost wholly opaque.

Although the condition of the tympanal orifices allies this division to the Zammararia, with which the dilated pronotal margins also agree, the genus *Hamza*, on which it is founded, could, apart from the tympanal characters, be easily confused with the genus *Platycleura* belonging to the subfamily Cicadinae.

Genus HAMZA.

Hamza, Dist. Trans. Ent. Soc. Lond. 1904, p. 674.

Type, *H. bouruensis*, Dist. (*Platycleura*).

Division GÆANARIA.

This division, at present represented by three Eastern genera, is to be principally recognized by the following characters:—The tegmina and wings are opaque and generally more or less brilliantly coloured; the lateral margins of the pronotum are neither amplified nor dilated; the tympanal orifices are largely exposed, the tympanal coverings being a little narrower and much shorter than the orifices, and with their anterior margins convex.

Synopsis of Genera.

- A. Tegmina with the venation normal; apical areas eight.
 a. Head longer than pronotum, front somewhat porrectly produced.
 b. Greatest breadth of tegmina more than one third of their length *Gæana*.
 aa. Head not longer than pronotum, obliquely depressed in front of eyes.
 bb. Greatest breadth of tegmina only about one third of their length *Balinta*.
 B. Tegmina with the venation reticulate, ulnar and apical areas broken up into many cellular divisions *Talainga*.

Genus GÆANA.

Gæana, Amy. & Serv. Hist. Hém. p. 463 (1843).

Type, *G. maculata*, Drury (*Cicada*).

BALINTA, gen. nov.

Head (including eyes) about as wide as base of mesonotum and as long as pronotum, obliquely depressed in front of eyes; pronotum about as long as mesonotum, its lateral margins sinuate, the posterior angles moderately dilated; abdomen in male much longer than space between apex of head and base of cruciform elevation; tympanal coverings both shorter and narrower than the tympanal orifices, which are most exposed inwardly; opercula in male small and transverse, widely separated, and not extending beyond base of abdomen; rostrum reaching posterior coxæ; anterior femora strongly spined beneath; tegmina and wings opaque; tegmina with their greatest breadth about one third their length and with eight apical areas.

Type, *B. octonotata*, Westw. (*Cicada*).

Balinta auriginea, sp. n.

♀. Head, pronotum, and mesonotum yellow; head with some marks at the area of the ocelli and the lateral margins of vertex black; pronotum with a broad central longitudinal fascia, two large spots on each lateral area, and the lateral margins black; mesonotum with a broad irregular central fascia, a somewhat shorter fascia on each lateral area, and the central base of cruciform elevation, black; abdomen reddish ochraceous, with a central longitudinal fascia, and three large segmental spots on each side, black; body beneath and legs piceous brown; face and space between face and eyes yellow; a large spot near apex of face and a spot at inner margins of eyes black; femora (excluding apices) testaceous; tegmina bronzy brown, with three pale spots, two on postcostal area and one at inner angle; some faint pale streaks in the apical areas; wings sanguineous, the apical and posterior margins black.

Long., excl. tegm., ♀ 20 mm.; exp. tegm. 52 mm.

Hab. Mts. du Ht. Song-Chai (Paris Mus.).

Allied to *B. octonotata*, Westw.

Genus TALAINGA.

Talainga, Dist. Ann. & Mag. Nat. Hist. (6) v. p. 166 (1890).

Type, *T. Binghami*, Dist.

Division PSITHYRISTRIARIA.

Head (including eyes) considerably narrower than base of mesonotum, tympanal coverings as long as but very much narrower than the orifices, which are thus inwardly exposed; abdomen narrowed posteriorly, a little longer than the space between the apex of head and base of cruciform elevation; tegmina and wings hyaline: tegmina with the venation abnormal; apical areas eight, the lower one very small; ulnar areas much compressed, broad, especially the two lowermost.

Genus PSITHYRISTRIA.

Psithyristria, Stål, Öfv. Vet.-Ak. Förh. 1870, p. 712.

Type, *P. specularis*, Stål.

Division MOGANNIARIA.

Tegmina and wings hyaline, the tegmina spotted or in part more or less brilliantly coloured; body ovate, more or less attenuated anteriorly and posteriorly; head with the front more or less triangularly produced; tympanal flaps present, but incomplete, the tympanal orifices in part exposed.

Two genera are here included in this division, one Neotropical and the other Oriental in distribution.

Synopsis of Genera.

- A. Anterior femora not spined beneath.
 a. Body short and robust; abdomen shorter than pronotum and mesonotum together; head frontally narrowed and produced.
 b. Lateral margins of pronotum dentate *Pachysaltria*.
 B. Anterior femora spined beneath.
 aa. Body robust; abdomen a little shorter or almost as long as space between apex of head and base of cruciform elevation; head strongly conically produced.
 bb. Lateral margins of pronotum oblique, not dentate. *Mogannia*.

Genus PACHYPSALTRIA.

Pachysaltria, Stål, Ann. Soc. Ent. Fr. (4) i. p. 616 (1861).

Type, *P. cincto-maculata*, Stål (*Cicada*).

Genus MOGANNIA.

Mogannia, Amy. & Serv. Hist. Hém. p. 467 (1843).

Type, *M. conica*, Germ. (*Cicada*).

Mogannia mandarina, sp. n.

♀. Body and legs black, shining; head, pronotum, and mesonotum somewhat longly ochraceously pilose; abdomen above with a broad central, longitudinal, ochraceously pilose fascia; underside of body and legs somewhat less longly pilose; tegmina and wings hyaline, the venation piceous; tegmina with the basal half shining black, containing a transverse hyaline fascia divided by the dark veins, occupying basal half of radial area and terminating beneath basal cell; head with the front longly produced, its apex terminating in a tuft of long ochraceous hairs.

Long., excl. tegm., ♀ 18 mm.; exp. tegm. 45 mm.

Hab. Hong Kong (Brit. Mus.).

Allied to *M. nasalis*, White.

Mogannia Horsfieldi, sp. n.

♀. Head, pronotum, and mesonotum very thickly ochraceously pilose; abdomen above black, with a broad, central, longitudinal, ochraceously pilose fascia; body beneath and legs piceous, the first thickly and the legs sparingly ochraceously pilose; tegmina and wings hyaline, extreme bases of both reddish ochraceous, the venation brownish or piceous; tegmina with the basal half connected at posterior angle with a very broad submarginal fascia, piceous brown; wings with the basal area beyond the reddish-ochraceous base pale fuscous.

Long., excl. tegm., ♀ 15 mm.; exp. tegm. 36 mm.

Hab. Java (*Horsfield*, Brit. Mus.).

ADDENDA.

Division CICADATRARIA (*ante*, p. 304).

TAMASA, gen. nov.

Body moderately short, abdomen not longer than space between apex of head and base of cruciform elevation; tympanal coverings both narrower and shorter than tympanal cavities; head shorter than pronotum, which is slightly shorter than mesonotum.

A genus intermediate between *Tettigia* and *Terpnosia*. From *Tettigia* it is separable by the structure of the tympanal coverings, which are both narrower and shorter than tympanal cavities, and by the short abdomen; from *Terpnosia* it also differs by the short and opaque abdomen, the greater width of the head between eyes = to width of base of mesonotum, and by the tympanal coverings being subangulate anteriorly.

Type, *T. tristigma*, Germ. (*Cicada*).

Subfam. CICADINÆ.

Division HETEROPSALTRIARIA
(to follow Cicadaria, vol. xiv. p. 425).

This division, at present represented by a single genus, is to be distinguished from the Cicadaria by the distinct venation of the tegmina, the radial area being very large and

broad, considerably more than half the whole length of tegmina, which has brought about the shortening of the three p per ulnar areas.

Genus HETEROPSALTRIA.

Heteropsaltria, Jacobi, SB. Ges. naturf. Fr. Berl. 1902, p. 73.

Type, *H. aliena*, Jacobi.

L.—*New Ground-Squirrels of the Xerus erythropus Group.*

By OLDFIELD THOMAS.

IN working out some ground-squirrels from Lake Chad presented by Capt. G. B. Gosling to the British Museum I have examined all the specimens assigned to *Xerus erythropus*, and find that, although very similar throughout the vast range of the group, they can be divided into two species by the size of their premolars, the East-African animal having these teeth noticeably smaller than in the other cases.

Of each of these two species again there is evidence of several geographical subspecies, so that six forms are distinguishable, as in the following synopsis:—

- | | |
|--|-------------------------------|
| A. Posterior upper premolar large, subquadran- | |
| gular. | |
| a. Back near clay-colour; forearms buff. | |
| a ¹ . West Africa | <i>X. erythropus</i> , Geoff. |
| b ² . Abyssinia and Egyptian Soudan | <i>X. e. leucoumbrinus</i> , |
| | [Rüpp. |
| b. Colour lighter; back near "pinkish buff"; | |
| forearms "cream-buff." Lake Chad | <i>X. e. chadensis</i> , |
| | [subsp. n. |
| c. Back blackened, approaching "mummy- | |
| brown"; forearms "cinnamon." Unyoro. | <i>X. e. lacustris</i> , |
| | [subsp. n. |
| B. Posterior upper premolar small, cylindrical. | |
| a. Back dull clay-colour; forearms dull buffy . | <i>X. microdon</i> , sp. n. |
| b. Back tawny ochraceous; forearms between | [subsp. n. |
| "ochraceous" and "clay-colour" | <i>X. m. fulvior</i> , |

All the current synonyms of *X. erythropus* are West African and referable to the typical subspecies, except Rüppell's *leucoumbrinus*, which will stand for the very similar Soudanese and Abyssinian animal.

Xerus erythropus chadensis, subsp. n.

Similar in general characters to Upper Nile examples of *X. e. leucoumbrinus*, but the colour much lighter throughout.